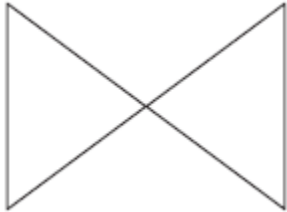


**Polygons (pp 322-324)**

1. What is your name?

**Decide whether the figure is a simple polygon. If not, explain why.**

2.



3.



**Use the number of sides to tell what kind of polygon the shape is. Then state whether the polygon is convex or concave.**

4.



5.



**Draw a figure that fits the description.**

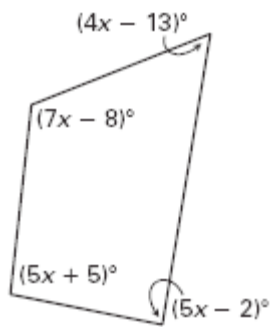
6. A concave nonagon

7. An equiangular quadrilateral that is not regular

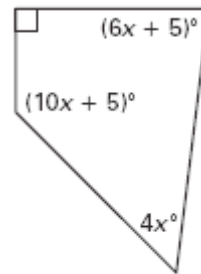
Polygons (pp 322-324)

Use the information in the diagram to solve for  $x$ .

8.



9.



Decide if the following statements are true or false.

10. \_\_\_\_\_ Every triangle is convex.

11. \_\_\_\_\_  $\overline{BE}$  is a diagonal of polygon BACDE.

12. \_\_\_\_\_ If quadrilateral WXYZ is regular, then it has four right angles.

13. \_\_\_\_\_ The polygon shown in Exercise 5 is a regular polygon.

14. \_\_\_\_\_ It is not possible to draw a concave quadrilateral.

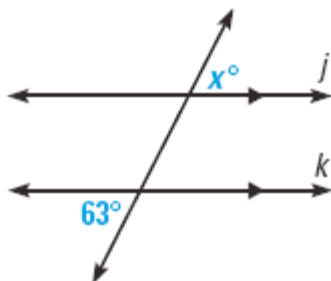
15. \_\_\_\_\_ All of the diagonals of a regular polygon are congruent.

**Pre-AP Geometry 6.1 Assignment:**  
**Polygons (pp 322-324)**

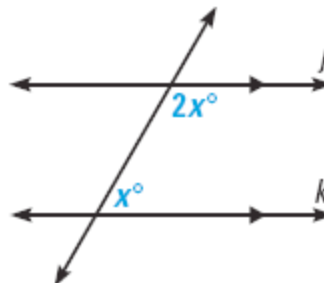
**Review.**

In the diagram,  $j \parallel k$ . Find the value of  $x$ . (Chapter 3 Section 3)

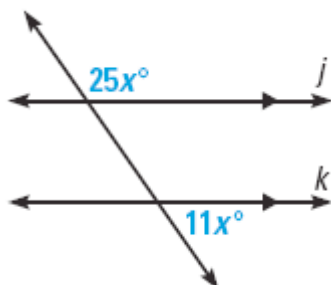
16.



17.



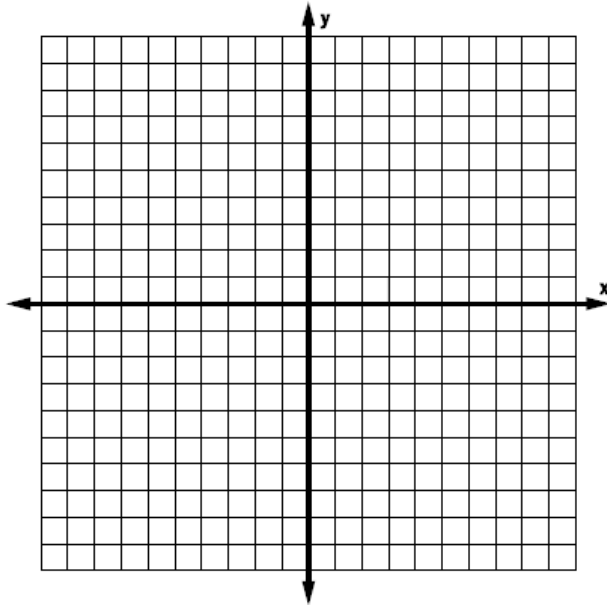
18.



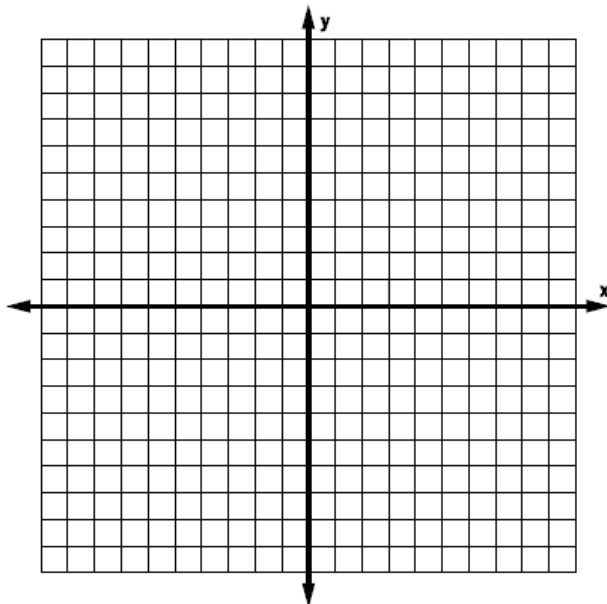
Polygons (pp 322-324)

You are given the midpoints of the sides of a triangle. Find the coordinates of the vertices of the triangle. ([Chapter 5 Section 4](#))

19.  $L(-4, -1)$ ,  $M(3, 6)$ ,  $N(-2, -8)$



20.  $L(-1, 3)$ ,  $M(6, 7)$ ,  $N(3, -5)$



Polygons (pp 322-324)

21. Use the Distance Formula to find the lengths of the diagonals of a polygon with vertices  $A(0, 3)$ ,  $B(3, 3)$ ,  $C(4, 1)$ ,  $D(0, -1)$ , and  $E(-2, 1)$ .

(Chapter 1 Section 3)

